UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,716	08/31/2001	Jignesh Raval	7790-04 (6629-54285)	1725

32986	7590	02/09/2005

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EXAMINER
POLLACK, MELVIN H

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>31 August 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-8</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-8</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 August 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☒ Other: *see attached office action*.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paley et al.

(6,457,152) in view of Bleier, Jr. et al. (6,832,184) and TCP/IP Illustrated, Vol. 1, by W. Richard

Stevens.

3.   For claims 1 and 4, Paley teaches a method (abstract) for verifying the hardware

operation (col. 1, line 1 – col. 3, line 42) of an Application Specific Integrated Circuit (ASIC)

chip (col. 9, lines 55-60) having microcode logic for enabling communications processing (col.

1, lines 18-60), said method performed in a system that comprises a first computing device (Fig.

4, #32) having a processor and register transfer level (RTL) code (col. 9, lines 60-65) for

simulating a computing device that includes said ASIC (col. 2, lines 15-30), said system further

comprising a second computing device coupled to said first computing device (Fig. 4) via a

network (col. 7, lines 50-60), causing said RTL code to initiate connections, commands, and

acknowledgements, and detecting connections, commands, and acknowledgements (col. 4, line

55 – col. 6, line 5; col. 11, lines 20-45).

4.   Further regarding claims 1 and 4, Paley does not expressly disclose that TCP/IP is placed

upon the ASIC. Instead, it discloses embodiments for which bus communications protocols are

embedded in tested ASICs (col. 2, lines 45-60). Paley does disclose, however, that the system

may test a wide variety of communication protocols using a variety of test designs (col. 4, lines 20-30; col. 7, lines 19-36). Bleier teaches a method (abstract) of testing TCP/IP devices (col. 1, line 18 – col. 7, line 67) using simple command/acknowledgement monitoring (col. 9, line 55 – col. 10, line 38). At the time the invention was made, one of ordinary skill in the art would have developed Bleier testing modules for Paley in order to allow testing of a wider variety of systems (col. 1, lines 40-45).

5.   Further regarding claims 1 and 4, and regarding claims 2 and 5, Paley and Bleier do not expressly disclose that the test can be the SYN-ACK handshaking connection method. Bleier teaches that the basic LAN frame generator method uses any testing situation where the serving system is relatively stateless, i.e. PING (col. 9, lines 55-65). Stevens teaches the handshaking method, which fits the criteria of Bleier (Pp. 232 and 250). At the time the invention was made, one of ordinary skill in the art would have developed this test in order to fulfill Bleier's test fidelity (Bleier, col. 4, lines 15-20).

6.   For claim 3, Paley teaches that said RTL initiated connection enables the transfer of at least one packet of data between said first computing device and said second computing device (col. 11, line 45 – col. 12, line 10).

7.   For claim 6, Paley does not expressly disclose that said first computing device and said second computing device are connected via one or more Local Area Networks. Bleier teaches that limitation (Fig. 10, #1018). At the time the invention was made, one of ordinary skill in the art would have added a LAN to Paley in order to produce conditions similar to real-world situations (col. 4, lines 40-60).

8.   For claim 7, Paley teaches that said RTL code is Verilog code (col. 4, line 15) and at least

one TCP/IP timer value in said second computing device is slowed to enable said Verilog code to

respond to a packet sent by second computing device before second computing device times out

and retransmits said packet (col. 5, lines 20-30).

9.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paley, Bleier, and

Stevens as applied to claim 4 above, and further in view of Lin et al. (6,389,379) and Schaumont

et al. (6,606,588).

10.   For claim 8, Paley teaches a third computing device (Fig. 4, #36) that is operative to

receive at least one packet from said first computing device addressed from said RTL code to

said second computing device and to place each said packet on the network, said third computing

device is further operative to look for at least one packet from said second computing device

addressed to said RTL code and to forward each said packet to said first computing device (col.

13, line 30 – col. 14, line 50).

11.   Further regarding claim 8, Paley does not expressly disclose that said first computing

device is a Sun workstation and said second computing device is a Linux machine, and said

system further comprises a third computing device that is a Linux machine. Paley teaches that

the devices are not specific to any operating system (col. 2, lines 15-45). Lin teaches a method

(abstract) of hardware simulation (col. 1, line 10 – col. 13, line 15) in which a Sun workstation

(col. 22, lines 49-65) is used to connect with Unix machines (col. 85, line 55 – col. 87, line 40).

Schaumont teaches a method (abstract) of hardware design and testing (col. 1, line 25 – col. 6,

line 25) using Linux systems (col. 9, lines 30-50). At the time the invention was made, one of

ordinary skill in the art would have used these systems in Paley in order to allow "black box"

testing (col. 4, lines 43-45).

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Melvin H Pollack whose telephone number is (571) 272-3887.

The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jack Harvey can be reached on (571) 272-3896. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
31 January 2005

V. Martin Wallace
Supervisory Patent Examiner